

REMARKS

Claims 1 - 26 were pending in the present application for patent as of the Office Action of February 8, 2007. In the Office Action of February 8, 2007, the Examiner objected to claim 21 because of an informality, rejected claim 26 under 35 U.S.C. 112, second paragraph, rejected claims 1 - 4, 9 - 12, 14, 15, 20 - 24, and 26 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 6,498,929, Tsurumi et al. in view of U.S. Patent Number 6,304,615, Webster, rejected claim 5 under 35 U.S.C. 103(a) as being unpatentable over Tsurumi et al. and Webster and further in view of U.S. Publication Number 2003/0007574, Li et al., rejected claims 6 - 8 under 35 U.S.C. 103(a) as being unpatentable over Tsurumi et al. and Webster and further in view of U.S. Patent Number 5,612,975, Becker et al., rejected claims 13 and 25 under 35 U.S.C. 103(a) as being unpatentable over Tsurumi et al. and Webster and further in view of U.S. Publication Number 2003/0199264, Holenstein et al., and indicated the allowability of claims 16 - 18.

Claim 21 was objected to because of an informality. The applicants have amended claim 21 to change "input" to "output" as suggested by the examiner.

Claim 26 was rejected under 35 U.S.C. 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. More specifically, the examiner rejected claim 26 because the phrase "a predetermined frequency range" occurs twice. In response, the applicants have amended claim 26 to change the second occurrence of "a predetermined frequency range" to "the predetermined frequency range". Also, the applicants have amended claim 26 to correct a minor error, that is, the word "to" was changed to "from". The applicants believe that claim 26 has been amended to overcome the rejection under 35 U.S.C. 112, second paragraph.

Claims 1 - 4, 9 - 12, 14, 15, 20 - 24, and 26 were rejected under 35 U.S.C. 103(a) as being unpatentable over Tsurumi et al. in view of Webster. The applicants believe that Tsurumi et al. in view of Webster does not show or suggest the present invention as claimed in claims 1 - 4, 9 - 12, 14, 15, 20 - 24, and 26.

Tsurumi et al. discloses a receiver in FIG. 61 having frequency characteristics control means (415 and 416) that adjust a cut-off frequency of low pass filters (22 and 23). Tsurumi et al. does not show or suggest both of the steps of "determining a magnitude of a filtered input

signal using the training signal and the DC offset correction signal” and “determining a magnitude of the filtered input signal at a predetermined frequency using the training signal and the DC offset correction signal”. Tsurumi et al. only determines whether the “gains of limiting waves” have a “desired cut-off frequency” during the test mode (column 39, lines 20 – 25 and lines 38 – 45). Therefore, Tsurumi et al. only performs a step similar to one of the first two “determining” steps of claim 1, but not both as claimed in claim 1.

Also, as pointed out by the examiner, Tsurumi et al. does not show or suggest the steps of “determining a difference” and “comparing the difference” as claimed in claim 1. The examiner provides Webster as showing these elements. However, the applicants respectfully disagree. FIG. 8 of Webster includes an automatic gain control (AGC) circuit (102). The circuit of FIG. 8 includes a DC restorer (100) that is shown in more detail in FIG. 9. Webster does not show or suggest “comparing the difference to a predetermined threshold value to generate an error metric”. FIG. 9 of Webster shows a comparator (150) that appears to compare the output of a clamping DC restorer (156) to a voltage (V_{ref}). The output of the clamping DC restorer (156) is provided as an input to one of the bandpass filters (118). Therefore, Webster does not compare a difference to a predetermined threshold value as claimed in claim 1. As can be seen in FIG. 9 of Webster, the comparing is done before the detectors (104 and 106) and before the summer (108).

Also, Webster teaches that the error signal (110) is used to control the amplitude of the controlled signal (112) and is not used to adjust the bandwidth frequency of an analog filter circuit (see Webster at column 8, lines 63 – 67). The apparatus of Webster in FIG. 8 and FIG. 9 is not capable of performing the claim element of “comparing the difference” as claimed in claim 1. Therefore, the combined teachings of Tsurumi et al. and Webster do not show or suggest the present invention as claimed in claim 1. Even if Webster did include “comparing the difference”, one of ordinary skill in the art would not be motivated to combine the teachings of Webster with Tsurumi et al. because in Webster the AGC error signal (110) is used to control amplitude and not bandwidth. Also, Webster is for a gain control circuit for a digital communications receiver. One of ordinary skill in the art would not be motivated to look to the digital communications receiver of Webster for bandwidth control of an analog filter as claimed in claim 1.

Regarding the rejection of claims 14 and 26, Tsurumi et al. in view of Webster does not show or suggest “comparing a magnitude difference to a predetermined threshold to generate an

error signal”. As discussed above regarding the rejection of claim 1, Webster does not compare a difference to a predetermined threshold to generate an error signal as claimed in claims 14 and 26. Also, Webster does not use the error signal to “adjust a bandwidth frequency of the analog filter” as claimed in claims 14 and 26. Webster uses the error signal to adjust amplitude. Therefore, claims 14 and 26 are allowable over Tsurumi et al. in view of Webster.

The applicants believe the comments above regarding the rejection of claims 1, 14, and 26 also apply to the rejection of dependent claims 2 – 4, 9 – 12, 15, and 20 – 24, and that claims 2 – 4, 9 – 12, 15, and 20 – 24 are allowable over Tsurumi et al. in view of Webster for at least the same reasons given above for claims 1, 14, and 26.

Claim 5 was rejected under 35 U.S.C. 103(a) as being unpatentable over Tsurumi et al. and Webster and further in view of Li et al. The applicants believe the comments above regarding the rejection of claims 1, 14, and 26 also apply to the rejection of claim 5, and that claim 5 is therefore allowable over Tsurumi et al. and Webster and further in view of Li et al.

Claims 6 – 8 were rejected under 35 U.S.C. 103(a) as being unpatentable over Tsurumi et al. and Webster and further in view of Becker et al. The applicants believe the comments above regarding the rejection of claims 1, 14, and 26 also apply to the rejection of claims 6 and 8, and that claims 6 and 8 are therefore allowable over Tsurumi et al. and Webster and further in view of Becker et al.

Claims 13 and 25 were rejected under 35 U.S.C. 103(a) as being unpatentable over Tsurumi et al. and Webster and further in view of Holenstein et al. The applicants believe the comments above regarding the rejection of claims 1, 14, and 26 also apply to the rejection of claims 13 and 25, and that claims 13 and 25 are therefore allowable over Tsurumi et al. and Webster and further in view of Holenstein et al.

The Office Action contains statements characterizing the claims, the Specification, and the prior art. Regardless of whether such statements are addressed by Applicants, Applicants refuse to subscribe to any of these statements, unless expressly indicated by Applicants.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein. No amendment made was for the purpose of narrowing the scope of any claim, unless the applicant has argued herein that such amendment was made to distinguish over a particular reference or combination of references.

Believing to have responded to each and every rejection contained in the Office Action mailed February 8, 2007, the applicants respectfully request the reconsideration and allowance of claims 1 - 26; thereby placing the application in condition for allowance.

Respectfully submitted,

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